

Large Signal Analysis Of Wideband Non-Linear Amplifiers With Sum And Difference Frequency Injection

Abuelma'atti, MT

**TAYLOR FRANCIS LTD, INTERNATIONAL JOURNAL OF ELECTRONICS; pp: 493-
510; Vol: 93**

King Fahd University of Petroleum & Minerals

<http://www.kfupm.edu.sa>

Summary

Large signal analysis of a wideband non-linear amplifier excited by a multi-sinusoidal signal is presented. The special cases of two equal-amplitude sinusoids and their injected harmonics, sum- and difference-frequency components are considered in detail and the results are compared, whenever possible, with previously published simulation and experimental results.

References:

1. ABUELMAATTI MT, 1993, INT J MATH ED SCI TE, V24, P107
2. ABUELMAATTI MT, 1994, IEE P-SCI MEAS TECH, V141, P177
3. ABUELMAATTI MT, 1994, IEEE T AERO ELEC SYS, V30, P650
4. ABUELMAATTI MT, 2004, FREQUENZ, V58, P197
5. AITCHISON CS, 2001, IEEE T MICROW THEO 2, V49, P1148
6. BUDIMIR D, 2000, MICROW OPT TECHN LET, V24, P208
7. BUDIMIR D, 2001, IEEE INT S EL DEV MI, P261
8. CHONGEHEAWCHAMNAN M, 2002, ELECTRON LETT, V38, P1450, DOI
9. 10.1049/el:20021003
10. FAN CW, 2001, IEEE MICROW WIREL CO, V11, P404
11. FAN CW, 2002, IEEE T MICROW THEORY, V50, P1801
12. HU Y, 1986, IEEE T MICROW THEORY, V34, P245
13. JENKINS WJ, 2000, IEEE MTT-S, P1515
14. LEUNG CS, 2002, IEEE MICROW WIREL CO, V12, P336, DOI
15. 10.1109/LMWC.2002.803150
16. MODESTE M, 1999, IEEE MTT S INT TOP S, P53
17. NESIMOGLU T, 1999, IEEE VTC P, P2353
18. WOHLBIER G, 2003, THESIS U WISCONSIN M, CH6

19. YANG YG, 1999, IEEE MICROW GUIDED W, V9, P419

For pre-prints please write to: mtaher@kfupm.edu.sa